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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/915,650	07/26/2001	Nassir Navab	2000P07791US01	7995

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Siemens Corporation  
Intellectual Property Department  
186 Wood Avenue South  
Iselin, NJ 08830

EXAMINER

CHOW, JEFFREY J

ART UNIT	PAPER NUMBER
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2672

DATE MAILED: 12/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/915,650

Applicant(s)

NAVAB ET AL.

Examiner

Jeffrey J. Chow

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 December 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DET3AILED ACTION**

### ***Specification***

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because the abstract is more than 150 words.

Correction is required. See MPEP § 608.01(b).

The abstract of the disclosure is objected to because the abstract contains a punctuation error after the word "superimposition" (line 12).

The disclosure is objected to because of the following informalities: There are no headings for the background of the invention, summary, brief description of the figures, and detail description of the figures, which are vital to easily distinguish each section of the disclosure. Suggestion is made to add these titles in appropriate places.

### **Content of Specification**

- (g) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.

The disclosure is objected to because of the following informalities: the possible section of the summary contains the abstract word for word. The possible section of the summary must be separate and distinct from the abstract.

The disclosure is objected to because of the following informalities: s in equation (1) is not explained in the disclosure.

Appropriate correction is required.

### ***Claim Objections***

Claims 23 – 33 are objected to under 37 CFR 1.75 as being a substantial duplicate of claims 2 – 12. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 15 recites the limitation "ArEcVideo" in line 8. There is insufficient antecedent basis for this limitation in the claim.

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Claims 16, 33, 35, and 44 recite the limitation of “artificial reality (AR)” in the last line of the mentioned claim. There is insufficient antecedent basis for this limitation in the claim.

Suggestion is made to use “augment reality (AR)”.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 4 – 8, 12, 16, 20 – 22, 25 – 29, 33 – 41, 44, and 45 are rejected under 35

U.S.C. 102(e) as being anticipated by Harrington.

Regarding to independent claim 22, Harrington discloses a camera 12 that captures the normal field of view of the user of the headset 10 that is substantially what the user would see without the headset 10 (column 4, lines 4 – 24). Harrington also discloses the analog signal from the camera 12 is converted to a digitized frame that can be stored in the computer 18 for analysis (column 4, lines 25 – 38), which reads on the claimed programmable computer for performing data process of video in real time, where the source of video data is coupled to a computer. Harrington also discloses the computer 18 must interpret the captured video frames to locate a piece of paper within the camera view (column 4, lines 38 – 67 and column 5, lines 1 - 34), which reads on the claimed calibration data and where the method of locating the piece of paper with reference to the camera reads on the claimed set of markers for calibration of said camera

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and for pose estimation of said markers, for providing calibration results. Harrington further discloses the unprojection module 82 that projects three-dimension object onto a two-dimensional viewing plane, where a two dimensional image results from the three dimensional object (column 7, lines 28 – 53), which reads on the claimed source of a 3-dimensional (3-D) image data model for a product and the said computer utilizing said 3-D image data and said calibration results for rendering a 3D model. Harrington further discloses the real item, preferably a page of paper, is disposed as reference frame for an electronic image to be displayed (abstract), which reads on the claimed computer utilizing said 3D model and said video data for generating a 3-D model with superposition of said 3D model and said video data so as to provide an AR video in real time relative to said video data.

Regarding to dependent claims 36 and 37, Harrington discloses a speech recognition 46 capability that the user can communicate and manipulate the application image by both image and speech (column 5, lines 41 – 45), which reads on the claimed source of video data comprises a source for associated sound data and microphone.

Regarding to claims 1, 4 – 8, 12, 16, 20, 21, 25 – 29, 33 – 35, 38 – 41, 44, and 45, see Harrington's system.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harrington in view of Jaszlics.

Regarding to dependent claims 2 and 23, Harrington discloses the use of 3D models, but not how explicitly using VRML. Jaszlics discloses the use of VRML for 3-D models. It would have been obvious to one of ordinary skills in the art at the time of the invention to combine Harrington's system with Jaszlics' teachings of using VRML for 3-D model to be able to render 3D model (if not already), in VRML style, which gives coders the flexibility to render 3-D model in other languages like VRML.

Claims 3 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harrington in view of Baldwin.

Regarding to dependent claims 3, and 24, Harrington discloses the use of 3D models, but not how explicitly using OpenGL. Baldwin discloses the use of OpenGL for 3-D models. It would have been obvious to one of ordinary skills in the art at the time of the invention to combine Harrington's system with Baldwin's teachings of using OpenGL for 3-D model to be able to render 3D model (if not already), in OpenGL style, which gives coders the flexibility to render 3-D model in other languages like OpenGL.

Claims 10, 11, 13, 14, 15, 17, 18, 19, 31, 32, 42, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harrington in view of Bimber.

Regarding to dependent claims 10, 11, 13, 14, 15, 17, 18, 19, 31, 32, 42, and 43, Harrington did not disclose the use of showing live exclusive video of the user demonstrating

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and rehearsing over the internet. Bimber the use of live audio/video streams that enable users to interact with the model and to see their collaborators on a desktop screen. It would have been obvious to one of ordinary skills in the art at the time of the invention to combine Harrington's system with Bimber's teachings of live audio/video to interact with correspondents or give presentations or rehearse presentations on one's very own desktop, which gives the flexibility to communicate with people in real time without being physically there.

Claims 9 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harrington

Regarding to claims 9 and 30, Harrington did not disclose the use of RealMedia and MPEG. It would have been obvious to one of ordinary skills in the art at the time of the invention to use Harrington's system with RealMedia and MPEG, as they are the few popular software and format to use at the time of the invention, which gives users the ability to see videos on their computers.



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***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey J. Chow whose telephone number is (571)272-8078. The examiner can normally be reached on Monday - Friday 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on (703)272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JJC

  
MICHAEL RAZAVI  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600